



MSDS: 0007177
 Date: 04/28/2006
 Supersedes: 10/27/2005

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: CYCOM® 5250-4 Structural Prepreg
Product Description: Modified bismaleimide resin on structural carrier
Intended/Recommended Use: Engineered material composite

Supplied By: CYTEC CANADA INC., 9061 GARNER ROAD, P.O. BOX 240,
 NIAGARA FALLS, ONTARIO, CANADA L2E 6T4 1-905/356-9000
EMERGENCY PHONE: In CANADA: 905/356-8310 In USA: 1-800/424-9300 or 1-703/527-3887.

Manufactured By: CYTEC INDUSTRIES INC., FIVE GARRET MOUNTAIN PLAZA,
 WEST PATERSON, NEW JERSEY 07424, USA - 973/357-3100

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2. COMPOSITION/INFORMATION ON INGREDIENTS

WHMIS REGULATED COMPONENTS

Component / CAS No.	%	(w/w)	OSHA (PEL):	ACGIH (TLV)	Carcinogen
Ceramic fiber thread	-	Carrier	5 mg/m ³ respirable 10 mg/m ³ total	Not established	-
Fused silica 60676-86-0	-	Carrier	5 mg/m ³ Respirable fraction. (PEL) 15 mg/m ³ Total dust. (PEL) 5 mg/m ³ Respirable fraction. (TWA) 15 mg/m ³ Total dust. (TWA) 0.1 mg/m ³ Respirable dust. (TWA)	0.1 mg/m ³ respirable fraction (TWA)	-
Treated silicon carbide fiber	-	Carrier	5 mg/m ³ respirable 10 mg/m ³ total	Not established	-
Carbon Fiber 7440-44-0	-	Carrier	15 mg/m ³ total dust (TWA) 5 mg/m ³ respirable fraction (TWA)	2 mg/m ³ (TWA) all forms except fibers	-
Bismaleimide resin #1	* 10-30		Not established	Not established	-
Substituted Bisphenol A	* 10-30		Not established	Not established	-

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Component / CAS No.	%	(w/w)	OSHA (PEL):	ACGIH (TLV)	Carcinogen
Bismaleimide resin #2	* 3-7		Not established	Not established	-
-					
Fiberglass	-	Carrier	Not established	Not established	-
-					
May be supplied on following carrier(s):	-		Not established	Not established	-
-					
Copper 7440-50-8	-	Carrier	0.1 mg/m ³ fume (TWA) 1 mg/m ³ dusts and mists (TWA)	0.2 mg/m ³ fume (TWA) 1 mg/m ³ dusts and mists, as Cu (TWA)	-
Nylon	-	Carrier	Not established	Not established	-
-					

*HMIRC REGISTRY #: 5648

Date Filed: 07/08/2003

Date Granted: 02/07/2006

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

APPEARANCE AND ODOR:

Color: yellow-brown
 Appearance: fiber base impregnated with viscous liquid
 Odor: slight characteristic bismaleimide

STATEMENTS OF HAZARD:

WARNING! MAY CAUSE ALLERGIC SKIN REACTION
 CAUSES SKIN IRRITATION

POTENTIAL HEALTH EFFECTS

EFFECTS OF EXPOSURE:

Based on the physical form of this product, exposure by the oral or inhalation route is unlikely. The acute dermal (rabbit) LD50 value is estimated to be greater than 2000 mg/kg. Repeated or prolonged dermal contact may cause allergic skin reactions. Exposure to vapor during heat curing may cause irritation or injury of the respiratory tract and eye irritation. Direct contact with this material may cause moderate skin irritation. Refer to Section 11 for toxicology information on the regulated components of this product.

4. FIRST AID MEASURES

Ingestion:

Not an expected route of exposure.

Skin Contact:

Wash immediately with plenty of water and soap. Remove contaminated clothing and shoes without delay. Obtain medical attention. Do not reuse contaminated clothing without laundering. Destroy or thoroughly clean shoes before reuse.

Eye Contact:

Not an expected route of exposure.

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Inhalation:

Remove to fresh air. If breathing is difficult, give oxygen. Obtain medical advice if there are persistent symptoms.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:

Use water spray or fog, carbon dioxide or dry chemical.

Protective Equipment:

Firefighters, and others exposed, wear self-contained breathing apparatus. Wear full firefighting protective clothing. See MSDS Section 8 (Exposure Controls/Personal Protection).

Mechanical/Static Sensitivity Statements:

None

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Where exposure level is not known, wear approved, positive pressure, self-contained respirator. Where exposure level is known, wear approved respirator suitable for level of exposure. Refer to Section 8 (Exposure Controls/Personal Protection) for appropriate personal protective equipment.

Methods For Cleaning Up:

Sweep up into containers for disposal. Flush spill area with water.

7. HANDLING AND STORAGE

HANDLING

Precautionary Measures: Avoid contact with skin and clothing. Wash thoroughly after handling.

Special Handling Statements: Heating or curing of unused rolls or sheets of product prior to disposal is not recommended. Heating a large mass of product can lead to a rapid decomposition reaction, generating heat, smoke and possibly fire.

STORAGE

None

Storage Temperature: Store at <-12 °C 10 °F

Reason: Integrity.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Measures:

Where this material is not used in a closed system, good enclosure and local exhaust ventilation should be provided to control exposure when spraying or curing at elevated temperatures.

Respiratory Protection:

Where exposures are below the established exposure limit, no respiratory protection is required. Where exposures exceed the established exposure limit, use respiratory protection recommended for the material and level of exposure. A full facepiece respirator also provides eye and face protection. Cutting, grinding or sanding of parts fabricated after curing may create respirable dust particles. Respiratory protection appropriate for this dust may be required. Refer to components listed above for potential hazardous components in the dust.

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Eye Protection:

Wear eye/face protection such as chemical splash proof goggles or face shield. Eyewash equipment and safety shower should be provided in areas of potential exposure.

Skin Protection:

Avoid skin contact. Wear impermeable gloves and suitable protective clothing. Barrier creams may be used in conjunction with the gloves to provide additional skin protection.

Additional Advice:

Food, beverages, and tobacco products should not be carried, stored, or consumed where this material is in use. Before eating, drinking, or smoking, wash face and hands thoroughly with soap and water.

9. PHYSICAL AND CHEMICAL PROPERTIES

Color:	yellow-brown
Appearance:	fiber base impregnated with viscous liquid
Odor:	slight characteristic bismaleimide
Boiling Point:	Not applicable
Melting Point:	Not applicable
Vapor Pressure:	@ 20 °C Negligible
Specific Gravity/Density:	1.25 - 2.54
Vapor Density:	@ 20 °C Negligible
Percent Volatile (% by wt.):	<1
pH:	Not applicable
Saturation In Air (% By Vol.):	Not applicable
Evaporation Rate:	Negligible
Solubility In Water:	Negligible
Volatile Organic Content:	Not available
Flash Point:	Not applicable
Flammable Limits (% By Vol):	Not applicable
Autoignition Temperature:	Not available
Decomposition Temperature:	>200 °C 392 °F
Partition coefficient (n-octanol/water):	Not applicable
Odor Threshold:	Not available

10. STABILITY AND REACTIVITY

Stability:	Stable
Conditions To Avoid:	None known
Polymerization:	May occur
Conditions To Avoid:	Avoid contact with bases or amines. Do not heat above 180 C (356 F) in bulk.
Materials To Avoid:	No specific incompatibility
Hazardous Decomposition Products:	carbon dioxide carbon monoxide oxides of nitrogen

11. TOXICOLOGICAL INFORMATION

Toxicological information for the product is found under Section 3. HAZARDS IDENTIFICATION. Toxicological information on the regulated components of this product is as follows:

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Bismaleimide resin #1 has an acute oral (rat) LD50 of >5000 mg/kg. Literature reports an acute inhalation (rat) LC50 of 0.25 - 0.5 mg/L. This material is a moderate skin sensitizer and may cause mild eye and moderate skin irritation upon direct contact. Irritation of the mucous membranes of the nose and upper respiratory tract may occur following inhalation of mist. This material was negative in the Ames test for mutagenicity and negative in a chromosomal aberration assay. Another study reported positive results in an invitro assay for mutagenicity. Literature reports that dust from this material has caused central nervous system effects in laboratory animals.

Substituted Bisphenol A has acute oral (rat) and dermal (rabbit) LD50 values of 2000-2200 mg/kg and greater than 2000 mg/kg, respectively. This material caused severe skin irritation (corrosive) and severe eye irritation when tested in rabbits. Overexposure to this material can cause chemical burns. Inhalation of vapor may be irritating to the respiratory tract.

Bismaleimide resin #2 has an acute oral (rat) LD50 value of 2400 mg/kg and an acute 4-hour inhalation LC50 (rat) value of 0.09 mg/L. Direct contact with bismaleimide resins can cause moderate eye and skin irritation. Repeated or prolonged contact with bismaleimide resins may cause allergic skin reactions.

Carbon fibers may cause mechanical irritation of the eyes, skin, nose and throat. Airborne carbon fibers are not considered respirable. A typical carbon fiber may be characterized as having a diameter of 5-7 microns and a length greater than 100 microns. Fibers with diameters greater than 3.5 microns are not considered respirable.

Inhalation of dusts and mists of copper salts can result in irritation of nasal mucous membranes, sometimes of the pharynx and on occasion, ulceration with perforation of the nasal septum. If copper salts in sufficient concentration reach the gastrointestinal tract, they act as irritants producing salivation, nausea, vomiting, gastric pain, hemorrhagic gastritis, and diarrhea. Chronic exposures may result in anemia but chronic poisoning as from lead does not occur. On the skin, copper salts also act as irritants producing itching eczema; and on the eye, conjunctivitis or even ulceration and turbidity of the cornea.

Fiberglass is considered a nuisance particulate which will not cause adverse health effects other than respiratory congestion or irritation.

Overexposure to fused silica fiber by inhalation, oral or dermal route is not expected to cause adverse effects. Amorphous silica does not cause the lung disease that crystalline silica is known to cause. The acute oral (rat) LD50 value for silica is >7.5 g/kg and the LC50 in rats exposed via inhalation is >250 mg/m³.

12. ECOLOGICAL INFORMATION

Environmental exposure from substances of this preparation are limited due to the physical form of the product. This material is not classified as dangerous for the environment.

13. DISPOSAL CONSIDERATIONS

Cytec encourages the recycle, recovery and reuse of materials, where permitted, as an alternative to disposal as a waste. Cytec recommends that organic materials classified as hazardous waste according to the relevant local or national regulations be disposed of by thermal treatment or incineration at approved facilities. All local and national regulations should be followed.

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13. DISPOSAL CONSIDERATIONS

14. TRANSPORT INFORMATION

This section provides basic shipping classification information. Refer to appropriate transportation regulations for specific requirements.

US DOT

Proper Shipping Name: Not applicable/Not regulated
Hazardous Substances:

TRANSPORT CANADA

Proper Shipping Name: Not applicable/Not regulated

ICAO / IATA

Proper Shipping Name: Not applicable/Not regulated
Packing Instructions/Maximum Net Quantity Per Package:
Passenger Aircraft: -
Cargo Aircraft: -

IMO

Proper Shipping Name: Not applicable/Not regulated

15. REGULATORY INFORMATION

This product has been classified in accordance with the hazard criteria of the Controlled products Regulations and this Material Safety Data Sheet contains all the information required by the Controlled Products Regulations.

WHMIS CLASSIFICATION:

Class D2B Toxic

INVENTORY INFORMATION

United States (USA): All components of this product are included on the TSCA Chemical Inventory or are not required to be listed on the TSCA Chemical Inventory.

Canada: All components of this product are included on the Domestic Substances List (DSL) or are not required to be listed on the DSL.

European Union (EU): All components of this product are included on the European Inventory of Existing Chemical Substances (EINECS) or are not required to be listed on EINECS.

Australia: All components of this product are included in the Australian Inventory of Chemical Substances (AICS) or are not required to be listed on AICS.

China: All components of this product are included on the Chinese inventory or are not required to be listed on the Chinese inventory.

Japan: All components of this product are included on the Japanese (ENCS) inventory or are not required to be listed on the Japanese inventory.

Korea: All components of this product are included on the Korean (ECL) inventory or are not required to be listed on the Korean inventory.

Philippines: All components of this product are included on the Philippine (PICCS) inventory or are not required to be listed on the Philippine inventory.

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16. OTHER INFORMATION

NFPA Hazard Rating (National Fire Protection Association)

Health: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

Fire: 1 - Materials that must be preheated before ignition can occur.

Reactivity: 0 - Materials that in themselves are normally stable, even under fire exposure conditions.

Reasons For Issue:

Revised Section 2

Revised Section 3

Revised Section 9

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